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December 13, 2005

Mr. Farhad Azimzadeh  
1515 Clay Street  
Oakland, CA 94612

**Subject: Estimated Volume of Potential LAVWMA Overflow to Alamo Canal**

Dear Mr. Azimzadeh:

As you requested, this letter discusses the estimated volume of potential emergency discharge from LAVWMA facilities to Alamo Canal, as related to the renewal of Order No. 99-023.

Potential overflow volumes to Alamo Canal were estimated and reported in the Wet Weather Operations Model, Phase III (Model) report (Carollo Engineers, 1998). This model simulated future wet weather flows by integrating projected growth with 67 years of historical rainfall data. The flow results were then analyzed statistically, to estimate the volume of overflow that would occur for a 5-year, 10-year, and 20-year flow event. Model results were included in Figure 2-13 of the Environmental Impact Report for the Export Pipeline Facilities Project (EIR) (Environmental Science Associates, 1998).

The Model estimated that the expanded LAVWMA system would provide 20-year flow event peak wet weather flow capacity until approximately 2023, presuming groundwater injection of water treated by reverse osmosis (RO) by member agencies. Figure 2-13 of the EIR illustrates this information more clearly. Figure 2-13, which is included as an attachment to this letter, assumed completion of the LAVWMA system expansion in 2003. In actuality, LAVWMA did not have full expanded capacity until 2005. After adjusting Figure 2-13 for this delayed completion date, one can conclude that between 2005 and approximately 2023, LAVWMA expects to have **no** overflows to Alamo Canal in a 20-year flow event or less. Between 2023 and 2040, LAVWMA expects to have overflows in 5-year, 10-year, and 20-year flow events, with an estimated maximum expected total annual overflow of 55 million gallons in 2025, increasing to 100 million gallons in 2040, for the 20-year flow event.

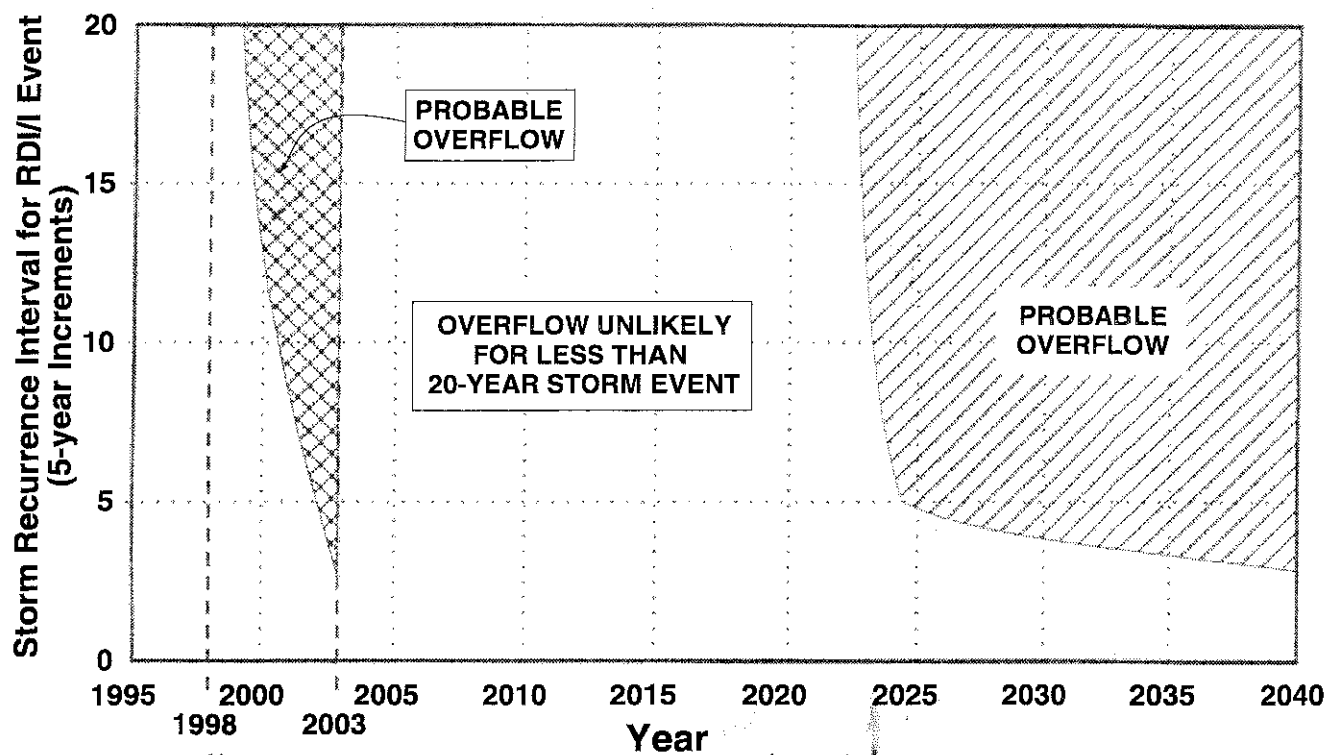
LAVWMA is required to update the Model every five years, beginning in 2006, in conjunction with permit renewal. Therefore, the 1998 Model, and results described above, are the most current results available, and accurately reflect expected overflows from the LAVWMA facilities to Alamo Canal.

Please call me at (925) 627-4111 if you have questions or would like to discuss this matter further.

Sincerely,

Vivian Housen, P.E.  
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**Notes:**

- (1) Consolidated flow of LAVWMA agencies.
- (2) EBDA capacity of 41.2 mgd.
- (3) Includes emergency storage of 50 MG at DSRSD prior to 2003.
- (4) Includes 3.25 MGD of RO.

**Legend:**

- Unlikely Overflow
- Probable Overflow (1998-2003)
- Probable Overflow (2003-2040)

Year	Overflow Event (Total Wet Season)				
	Expected Frequency	Expected Volumes (MG)			
		1 Yr. Event	5 Yr. Event	10 Yr. Event	20 Yr. Event
1998	>20 year	0	0	00	0
2002	3-5 year	0	30	60	95
2003	LAVWMA Export Pipeline Project Operational				
2003	>70 year	0	0	0	0
2010	>70 year	0	0	0	0
2020	>70 year	0	0	0	0
2025	3-5 year	0	5	25	55
2035	3-5 year	0	15	50	90
2040	3-5 year	0	30	55	100

SOURCE: Carollo Engineers

LAVWMA Export Pipeline Facilities Project EIR / 970331 ■

**Figure 2-13**  
Risk of Wet Weather Overflow